



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,269	09/10/2003	Takeshi Sasaki	11884/405201	4022
23838 7590 05/04/2007 KENYON & KENYON LLP 1500 K STREET N.W. SUITE 700 WASHINGTON, DC 20005			EXAMINER HOANG, HIEU T	
			ART UNIT 2152	PAPER NUMBER
			MAIL DATE 05/04/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/658,269	Applicant(s) SASAKI ET AL.	
	Examiner Hieu T. Hoang	Art Unit 2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to the amendment filed on 09/10/2003.
2. Claims 1-25 are pending and presented for examination.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simons (Understanding Active Directory Replication, pages 171-180, <http://searchwinit.techtarget.com/searchwin2000/downloads/pdfs/ImplementingtheAD2014.pdf>), in view of Ericsson et al. (SyncML Sync Protocol, version 1.0.1, http://www.openmobilealliance.org/tech/affiliates/syncml/syncml_protocol_v101_20010615.pdf, hereafter Ericsson), and further in view of Wang (US 2004/0019614).
5. For claim 1, Simons discloses a method for synchronizing data between a network server and a mobile device, comprising:
 - replicating an object instance in response to a replication request received from the network server (p. 172, fig. 14.1, an update request is in response to a change notification from the originating server);

Art Unit: 2152

Simons does not disclose:

- creating a notification message and sending the notification message to the mobile device in response to a polling request received from the mobile device;
- sending synchronization data to the mobile device in response to a synchronization request received from the mobile device.

However, Ericsson discloses:

- creating a notification message and sending the notification message to the mobile device (p. 49, fig. 10, sync alert from server to client to alert the client to perform sync) in response to a polling request received from the mobile device (fig. 10, polling occurs during when client and server initialize communication with each other);
- sending synchronization data to the mobile device in response to a synchronization request received from the mobile device (fig. 9, sync package 4 from the server to the client in response to sync alert package 3 from client).

Simons-Ericsson does not explicitly disclose the synchronization data includes the replicated object instance.

However, Wang discloses synchronization data includes the replicated object instance (fig. 1, [0032], [0033], when the PIM server adapter 132 receives the synchronization messages from the client device 100, it collects server delta messages from the mid-tier replicated database 136 and prepares the reply messages ready to be sent back to the client device, server delta messages are replicated data change (or replicated object instance) of the source messaging server 104).

Therefore, it would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Simon, Ericsson and Wang in order to implement a simple, optimized and generic method for detecting all possible synchronization conflict using a mid-tier server with a replicated database to avoid performance problem (Wang, [0008], [0007] lines 10-14).

6. Claims 10 and 18 are rejected for the same rationale as in claim 1.

7. For claims 2, 11, and 19, Simons-Ericsson-Wang discloses the invention as in claims 1, 10, and 18. Simons-Ericsson-Wang further discloses the replication request includes an object instance identifier and a mobile device identifier (Simons, p. 173, par. 2, a stamp associated with the update attribute is an object instance identifier, Wang, [0035], subscription id which defines the adapter type is read as a mobile device identifier).

8. For claims 3, 12 and 20, Simons-Ericsson-Wang discloses the invention as in claims 2, 11 and 19. Simons-Ericsson-Wang further discloses executing a remote function call in response to the replication request (Simons, p. 172, par. 5, 6, update request is a remote function call in response to a change notification or a replication request from the originating server, Wang, fig. 1, [0033], PIM server adapter invokes the scheduled PIM replication service 134 to replicate the message content).

9. For claims 4, 13, and 21, Simons-Ericsson-Wang discloses the invention as in claims 1, 10, and 18. Simons-Ericsson-Wang further discloses said replicating the object instance includes: requesting updated data associated with the object instance from the network server; receiving the updated data associated with the object instance from the network server; and storing the updated data associated with the object instance in a replica database (Simons, p. 172, par. 3, only changes are replicated, Wang, fig. 1, requesting, receiving and, storing the changed replicated data is done between the mid-tier replicated database and the source messaging server via a scheduled PIM replication service, [0033], PIM server adapter invokes the scheduled PIM replication service 134 to replicate the message content).

10. For claim 5, Simons-Ericsson-Wang discloses the invention as in claim 4. Simons-Ericsson-Wang further discloses said requesting updated data includes executing a remote functions call, including an object instance identifier, on the network server (Simons, p. 172, update request is a remote function call, p. 173 par. 2, a stamp is attached to an updated attribute or an instance so it can be updated, Wang, fig. 1, [0033], PIM server adapter invokes the scheduled PIM replication service 134 to replicate the message content or to execute a remote function call on the source messaging server).

11. For claims 6, 14 and 22, Simons-Ericsson-Wang discloses the invention as in claims 4, 13, and 21. Simons-Ericsson-Wang further discloses said sending the

Art Unit: 2152

replicated object instance to the mobile device includes sending only the updated data associated with the object instance to the mobile device (Simons, p. 173, par. 2, originating update from the originating server is replicated to the other servers, p. 172, par. 3, only changes are replicated, Wang, [0039], sending to the client or mobile device only new messages, Ericsson, section 5.2, page 38, data modification (replace, delete, add) in the synchronization server is sent to the client).

12. For claims 7, 15, and 23, Simons-Ericsson-Wang discloses the invention as in claims 5, 13, and 22. Simons-Ericsson-Wang further discloses sending a replication acknowledgement message to the network server in response to said storing the updated data (it is well known in the art how to use an ACK message to notify that an operation is successful).

13. For claims 8, 16, and 24, Simons-Ericsson-Wang discloses the invention as in claims 1, 10, and 18. Simons-Ericsson-Wang further discloses said replicating an object instance includes deleting the object instance from a replica database (Wang, fig. 5, deleted mirror message).

14. For claims 9, 17, and 25, Simons-Ericsson-Wang discloses the invention as in claims 1, 10, and 18. Simons-Ericsson-Wang further discloses said replicating an object instance includes adding a new object instance to a replica database (Wang, fig. 5, updated mirror message).

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Immerman et al. US 6,574,617. Selective replication of database.
- Blanco et al. US 2004/0230619. Update dependency control for multi-master replication.
- Piispanen et al. US 2003/0191827. Synchronizing how data is stored.
- Mettala et al. US 2004/0215669. Application data synchronizing.
- Hansmann et al. US 2005/0228812. Accessing different types of backend data stores.
- Bogantz et al. US 6,243,715. Replicating database synchronization method.
- Kawell Jr. et al. Replicated Document Management in a Group Communication Syetem. <http://delivery.acm.org/10.1145/1030000/1024798/p395-kawell.pdf?key1=1024798&key2=0896996711&coll=GUIDE&dl=GUIDE&CFID=16857707&CFTOKEN=86100070>.

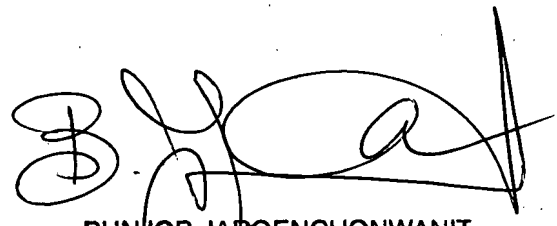
16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hieu T. Hoang whose telephone number is 571-270-1253. The examiner can normally be reached on Monday-Thursday, 8 a.m.-5 p.m., EST.

Art Unit: 2152

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571-272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HH



BUNJOB JAROENCHONWANIT
SUPERVISORY PATENT EXAMINER